

Remarks

Claims 1-5, 7, 9-10, 12-13, and 16-20 remain pending in the application with claims 1 and 13 being in independent form. Claims 6, 8, and 11 were previously cancelled and claims 14 and 15 are now being cancelled. Claims 1-5, 7, 9, 10, and 12 are allowed. Also, claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form.

Claim 13 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Iijima et al. or Chung. Also, claims 13 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Knobloch et al. in view of Fukui. Claims 15-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Knobloch et al. in view of Fukui and further in view of Rosen.

Applicant has amended claim 13 to include the limitations from previous dependent claims 14 and 15. As such, the § 102(b) rejections and the first § 103(a) rejection are believed overcome. Applicant respectfully traverses the second § 103(a) rejection, namely the obviousness combination of Knobloch et al. in view of Fukui and Rosen.

Amended claim 13 now includes the following unique combination;

- a non-rotating spindle,
- a wheel hub rotatably supported on the spindle,
- a reduction gear assembly mounted within the hub chamber,
- the reduction gear assembly having an inner ring gear mounted to the spindle and an outer ring gear mounted to the wheel hub,
- the reduction gear assembly also having a plurality of inner gears in meshing engagement with the inner ring gear and a plurality of outer gears in meshing engagement with the outer ring gear,
- each one of the inner gears has a corresponding outer gear to form a plurality of gear pairs,
- the inner and outer gears in each of the gear pair are rigidly mounted to a common shaft, and
- an electric motor mounted within the spindle having an output shaft coupled to the input to rotate the plurality of gear pairs to drive the wheel hub.

The Examiner contends that Knobloch et al. discloses the basic structure of the claimed invention (the spindle, wheel hub, and reduction gear assembly), that Fukui

provides some teaching to mount an electric motor within the spindle of Knobloch, that Knobloch and/or Fukui disclose inner gears meshing with an inner ring gear and outer gears meshing with an outer ring gear, and that Rosen discloses gear pairs rigidly mounted to a common shaft.

Applicant respectfully submits that any purported teaching that Fukui may provide for using an electric motor *cannot* be imported into the assembly of Knobloch et al. Knobloch et al. discloses a non-rotating spindle 36 that has a substantially flat shaped flange structure 64 and does NOT incorporate an interior spindle chamber that is capable of receiving any type of motor, let alone an electric motor. Further, there is no teaching to modify Knobloch et al. in such a manner.

Also, both Knobloch et al. and Fukui require that the shaft supporting the inner and outer gears be **fixed** (see the pin 134 and hole 135 in Knobloch et al. and see the bolt and bore in Figures 1 and 8 in Fukui). In both Knobloch et al. and Fukui, the gear pairs rotate about their respective fixed shafts.

It is well settled that a proposed modification to a reference cannot render the reference unsatisfactory for its intended purpose. Further, the proposed modification cannot change the principle of operation of the reference. See MPEP 2143.01. If the shaft of Rosen was incorporated into the configurations of Knobloch et al. and Fukui, the gear pairs would not be allowed to rotate. This is because the gears are integral with the shaft in Rosen and the shaft must be fixed if incorporated into the driving mechanisms of Knobloch et al. and Fukui. Hence, the principle operation of both Knobloch et al. and Fukui (transferring rotation) would be destroyed and the motor could not transfer power to the wheel hubs, which completely defeats the intended purpose of the driving mechanisms.

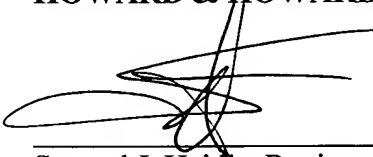
Hence, even taking into consideration the teachings of Knobloch et al., Fukui, and Rosen, the unique and non-obvious combination of features as claimed in independent claim 13 are not found. As such, claim 13 is believed allowable and claims 16-20 are also believed allowable as these claims depend from the novel features of claim 13.

The remaining references cited but not applied to the claims have been considered. Since the Examiner has apparently considered these references as less pertinent than the above discussed reference(s), further discussion of the non-applied references, at this time, is considered unnecessary. However, it is respectfully submitted that the combination of elements in claim 13 patentably defines over all references of record either independently or in combination.

It is respectfully submitted that the Application, as amended, is now presented in condition for allowance, which allowance is respectfully solicited. The Commissioner is authorized to charge our Deposit Account No. 08-2789 for any fees or credit the account for any overpayment.

Respectfully submitted,

HOWARD & HOWARD ATTORNEYS, P.C.



Dated: May 19, 2004

Samuel J. Hidle, Registration No. 42,619
The Pinehurst Office Center, Suite 101
39400 Woodward Avenue
Bloomfield Hills, MI 48304-5151
(248) 723-0334

CERTIFICATE OF MAILING

I hereby certify that the attached **Amendment** is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to the **Mail Stop Non-Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450**, on **May 19, 2004**.



Brenda J. Hughes